

From the INTERNATIONAL BUREAU

PCTNOTIFICATION OF TRANSMITTAL
OF COPIES OF TRANSLATION
OF THE INTERNATIONAL PRELIMINARY
EXAMINATION REPORT

(PCT Rule 72.2)

To:

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24. Nov. 2004

Erled.

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| Date of mailing (<i>day/month/year</i>) 18 November 2004 (18.11.2004) | |
| Applicant's or agent's file reference 2002-0305 P | IMPORTANT NOTIFICATION |
| International application No. PCT/EP2003/003141 | International filing date (<i>day/month/year</i>) 26 March 2003 (26.03.2003) |
| Applicant OCE PRINTING SYSTEM GMBH et al | |

1. Transmittal of the translation to the applicant.

The International Bureau transmits herewith a copy of the English translation made by the International Bureau of the international preliminary examination report established by the International Preliminary Examining Authority.

2. Transmittal of the copy of the translation to the elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following elected Offices requiring such translation:

None

The following elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

EP, JP, US

3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report.

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Authorized officer

Agnes Wittmann-Regis

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Translation

PATENT COOPERATION TREATY

PCT/EP2003/003141



PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

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| Applicant's or agent's file reference 2002-0305 P | FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416) | |
| International application No. PCT/EP2003/003141 | International filing date (day/month/year) 26 March 2003 (26.03.2003) | Priority date (day/month/year) 26 March 2002 (26.03.2002) |
| International Patent Classification (IPC) or national classification and IPC G03G 15/09 | | |
| Applicant OCE PRINTING SYSTEM GMBH | | |

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 7 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 6 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☒ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☐ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

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| Date of submission of the demand 11 August 2003 (11.08.2003) | Date of completion of this report 04 June 2004 (04.06.2004) |
| Name and mailing address of the IPEA/EP | Authorized officer |
| Facsimile No. | Telephone No. |

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP2003/003141

I. Basis of the report

1. This report has been drawn on the basis of *(Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.)*:

- ☐ the international application as originally filed.
- ☒ the description, pages 1-14, as originally filed,
 pages _____, filed with the demand,
 pages _____, filed with the letter of _____,
 pages _____, filed with the letter of _____.
- ☒ the claims, Nos. 1-17, as originally filed,
 Nos. _____, as amended under Article 19,
 Nos. _____, filed with the demand,
 Nos. _____, filed with the letter of _____,
 Nos. _____, filed with the letter of _____.
- ☒ the drawings, sheets/fig 1/5-5/5, as originally filed,
 sheets/fig _____, filed with the demand,
 sheets/fig _____, filed with the letter of _____,
 sheets/fig _____, filed with the letter of _____.

2. The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

3. ☒ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

4. Additional observations, if necessary:

See attached sheet

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III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

☒ the entire international application.

☐ claims Nos. _____

because:

☐ the said international application, or the said claims Nos. _____
relate to the following subject matter which does not require an international preliminary examination (*specify*):

☒ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. _____
are so unclear that no meaningful opinion could be formed (*specify*):

☐ the claims, or said claims Nos. _____ are so inadequately supported
by the description that no meaningful opinion could be formed.

☐ no international search report has been established for said claims Nos. _____

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I. Basis of the report

1. This report has been drawn on the basis of *(Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.)*:

This expert opinion makes reference to the following documents:

- D1: PATENT ABSTRACTS OF JAPAN, vol. 2000, no. 20,
10 July 2001 (2001-07-10) & JP 2001 083795 A
- D1a: US 6 526 248 B1, post-published (2003-02-25),
family document of D1
- D2: PATENT ABSTRACTS OF JAPAN, vol. 010, no. 199
(P-453), 6 May 1986 (1986-05-06)
& JP 60 2427669
- D3: PATENT ABSTRACTS OF JAPAN, vol. 017, no. 600
(P-1637), 4 November 1993 (1993-11-04)
& JP 05 181366 A
- D4: PATENT ABSTRACTS OF JAPAN, vol. 007, no. 249
(P-234), 5 November 1983 (1983-11-05)
& JP 58 132769 A
- D5: PATENT ABSTRACTS OF JAPAN, vol. 1996, no. 11,
29 November 1996 (1996-11-29) & JP 08 179616 A
- D6: PATENT ABSTRACTS OF JAPAN, vol. 1997, no. 05,
30 May 1997 (1997-05-30) & JP 09 026701
- D7: PATENT ABSTRACTS OF JAPAN, vol. 017, no. 529
(P-1618), 22 September 1993 (1993-09-22)
& JP 05 142931 A
- D8: WO 03 036393 A (cited in the application).

Continuation of Box I.5

Basis of the report

The amendments submitted with the letter of 3 May 2004 introduce substantive matter which, contrary to PCT

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I. Basis of the report

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Article 34(2)(b), goes beyond the disclosure in the international application as filed. The amendments are as follows:

- (i) The new independent claim 3 goes beyond a combination of the original claims 1 and 10. Furthermore, the features - namely that *the coating is composed of composite material* - of the original claim 9, to which claim 10 was subordinated, and also the final feature of claim 10 - namely that *the pores of the coating are at least partly filled with plastics* - have been omitted. The new combination of features resulting from the omission of features does not appear to be supported in the application as originally filed. On page 10 (see the second paragraph), the features of the present claim 3 are also mentioned only in combination with the aforementioned omitted features.
- (ii) The range of diameters in the new claim 5 cannot be derived from the application as originally filed. The original claim 11, upon which said feature is based, describes a range of 2 to 100 μm .

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Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: III.1

1. The claims include multiple independent claims in the same category, namely device claims 1, 2 and 3. The scope of protection of these claims appears to be overlapping in part and, in consequence, the claims are not concise (PCT Article 6).

On the other hand, the above claims contain different definitions of the invention and, as a result, it is unreasonably difficult to identify the subject matter for which protection is sought. Thus, said claims lack clarity (PCT Article 6).

In addition, the description contains an embodiment (see figure 3 and page 8) that cannot be assigned to any of the claims. In consequence, the claims are not consistent with the description, which gives rise to a further lack of clarity with regard to the exact subject matter for which protection is claimed (see also the PCT International Preliminary Examination Guidelines IV, paragraph III-4.3).

Consequent upon the lack of clarity in the above instances, it is not possible to carry out a meaningful, detailed examination.

2. Nevertheless, the following observations are made in respect of unity of invention and the relevance of the cited documents to the claims:

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Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: III.1

2.1 Unity of invention (PCT Rule 13)

The concept (device for conveying toner, comprising a rotatable roller having a roller sleeve with a coating) that is common to the three device claims, claims 1, 2 and 3, is well known (see prior art citations D1 to D6) and therefore cannot constitute the required single general inventive concept.

There is no apparent relationship among the remaining features (e.g. claim 1: depressions in the surface are filled with plastics; claims 2 and 3: roller sleeve has a coating of porous ceramics) that distinguish the three device claims (i.e. their "special technical features" (PCT Rule 13.2)) over the aforementioned prior art citations, for example D6. Said features are neither the same nor related, nor are they based on a unifying, inventive statement of object (reducing adhesion of the toner to the surface of the roller sleeve *per se* is also well known from D1 to D6; moreover, this objective is achieved in D6 by means of increased roughness). Thus, the present claims appear to comprise at least two groups of inventions that are not linked by unity of invention (namely claim 1 and claims 2 and 3).

2.2 Relevance of the citations:

2.2.1 Document D6 discloses a magnet roller sleeve with a metal coating which is applied by means of a

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Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: III.1

flame spraying method, said coating having a relatively "high" degree of roughness and a structure produced by the flame spraying method. Filling the depressions with plastics is not known from D6 but, in the absence of further information concerning the properties of the plastics (for example, the anti-adhesive properties of the PTFE to which one reference is made), said feature can only be assessed as arbitrary and therefore lacking an inventive step.

Document D8 should also be noted with regard to claim 1. Said document (see for example page 38, lines 7-26) discloses all the features of claim 1. Although this document is post-published, it claims an earlier priority than the present application.

2.2.2 Document D7 also discloses a roller sleeve with a coating of porous ceramics but gives no detailed information with regard to roughness. However, these distinguishing features of claim 2 must also be regarded as arbitrary, except in their specific context, and without inventive value.

2.2.3 Document D5 discloses a composite material consisting of electroconductive particles and particles with low surface energy. However, D5 does not mention any ceramics spray coating as per claim 3. This distinguishing feature can be considered novel and inventive only in conjunction

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Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: III.1

with the missing or omitted features of the composite material and the partial filling with low surface energy plastics, which combination of features unites anti-adhesive properties, electroconductivity and mechanical stability.

2.2.4 The use of PTFE or its derivatives, as well as PFA, in the outer coating of a roller sleeve provided for the conveyance or dispensing of toner is well known for reducing the adhesion of toner (see for example documents D1 to D4).